

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-2 (Canceled)

3. (Currently Amended) A method of operation of a networked device, including device comprising the acts of:

transmitting or receiving (104) from a first device to a second device a request for a simple device description message (230) of defined length from a first device to a second device, the simple device description message being in the form of a token-compressed message compressed from a human-readable message ~~format,~~ format;

including by the second device a device type value representing a type the second device in the simple device description message; and

transmitting from the second device to the first device the simple device description message including a device type value representing the type of the other device; the device type value being selected from a device type hierarchy having predetermined top level elements including a controller device type (52) and a basic device type (54), and at least one further level (68) of subsidiary device types depending from the basic device type (54) and inheriting properties of higher level device types on which the subsidiary device type depends, but not including any further level of subsidiary device types depending from the controller device type (52).

4. (Currently Amended) A The method according to claim 3 further including the ~~steps~~ acts of:

establishing (102) ~~the~~ an address of at least one other device;

sending (104) ~~a~~ simple device description query message to the ~~other device or one or more of the other devices~~ at least one other device requesting a simple device description;

receiving (106) ~~from the~~ at least one other device ~~or devices~~

the simple device description message of the at least one other device.

5. (Currently Amended) A The method according to claim 3 further comprising the acts of:

sending ~~(108)~~ an extended device description query message to the at least one other device ~~or one of the other devices~~ requesting an extended device description from the ~~other devices~~ at least one other device; and

receiving ~~(110)~~ from the at least one other device ~~or the one of the other devices~~ an extended device description of variable length.

6. (Currently Amended) A The method according to claim 3 wherein the networked device is a controller device ~~(2)~~ having a list ~~(24)~~ of device types that the controller can control.

7. (Currently Amended) A The method according to claim 6 further including the act of:

determining ~~the~~ an extent to which the controller can control

the at least one other device by in the list of device types that
can be controlled by the controller;

wherein the determining act is performed by the act of
determining ~~the~~ a lowest level of device type that either is the
device type of the at least one other device or is a higher level
device type from which the device type of the at least one other
device depends, ~~in the list of device types that can be controlled~~
~~by the controller.~~

8. (Currently Amended) A The method according to claim 7
further including the acts of:

receiving ~~(120)~~ a controller query message from another device
including ~~an~~ a requested device type value to request whether the
controller is able to control a device of the requested device
type; and

responding ~~(122)~~ with a controller response message including
a device type value representing the lowest level of device type in
the list of device types that either is the requested device type
or is a higher level device type from which the requested device
type depends.

9. (Currently Amended) ~~A~~ The method according to claim 3,
comprising further comprising the act of:

receiving a simple device description query message from
another device requesting a simple device description; and

transmitting to the other device the simple device description
message ~~(230)~~ of fixed length.

10. (Currently Amended) ~~A~~ The method according to claim 9
wherein the predetermined top level elements in the device type
hierarchy further include a composite device type, and the
networked device is of the composite device type having ~~the~~ a
functionality of an integer number of other devices, the method
further comprising the act of:

responding to a received simple device description query
message by sending a simple device description message ~~(230)~~
including the device type value ~~(232)~~ representing the device as a
composite device and further an integer sub-device number being the
number ~~(234)~~ of other devices.

11. (Currently Amended) A system, ~~comprising~~ comprising:
a plurality of networked devices (200) each having a transceiver (8) for sending and receiving network messages, the networked messages including device description messages identifying ~~the~~ a device type of a networked device; wherein each networked device has a predetermined device type selected from a device type hierarchy having predetermined top level elements including a controller device type (52) and a basic device type (54), and at least one further level (68) of subsidiary device types depending from the basic device type and inheriting properties of higher level device types on which the subsidiary device type depends, but not including any further level of subsidiary device types depending from the controller device type; at least one of the networked devices is a controller device (2) with ~~the~~ a controller device type (52); and at least one of the networked devices is a controlled device (4) with a device type of the basic device type (54) or a device type (62, 64, 66,) depending from the basic device type (54).

12. (Currently Amended) A The system according to claim 11,

wherein the plurality of networked devices ~~include~~ includes:

at least one simple device without the capability to decompress messages ~~and~~, the at least one simple device interpreting directly compressed simple device description query messages; and

at least one complex device including a message decompression arrangement ~~(184)~~ for decompressing the messages and a message interpreter for interpreting the decompressed messages.

13. (Currently Amended) A The system according to claim 11, ~~or~~ 12 wherein the predetermined top level elements further include a composite device type;

wherein the system includes at least one networked device of the composite device type having ~~the~~ a functionality of a predetermined number of other devices, the predetermined number being an integer greater than or equal to 2;

and wherein each of the at least one networked device of the composite device type responds to an incoming device query message requiring a simple device description by sending a simple device description ~~(230)~~ including the device type ~~(232)~~ as a composite

device and a sub-device number ~~(234)~~ representing the predetermined number of other devices.

14. (Currently Amended) A networked device, including:
a transceiver ~~(8)~~ for sending and receiving messages; ~~and;~~ and
a message handler ~~(26, 182)~~ arranged to send or receive simple device description message of defined length, the simple device description message being in ~~the~~ a form of a token-compressed message compressed from a human-readable message format, the message including a device type value representing ~~the~~ a type of ~~the other~~ a further device; the device type value being selected from a device type hierarchy having predetermined top level elements including a controller device type ~~(52)~~ and a basic device type ~~(54)~~, and at least one further level ~~(68)~~ of subsidiary device types depending from the basic device type ~~(54)~~ and inheriting properties of higher level device types on which the subsidiary device type depends, but not including any further level of subsidiary device types depending from the controller device type ~~(52)~~.

15. (Currently Amended) A The networked device according to claim 14,

wherein the message handler is arranged to carry out the ~~steps~~ acts of:

establishing ~~(102) the an~~ address of at least one other the further device;

sending ~~(104)~~ a simple device description query message to ~~another further~~ device requesting a simple device description;

receiving ~~(106)~~ from the ~~other further~~ device the simple device description message of fixed length including a device type value representing ~~the a~~ type of the ~~other further~~ device and a field indicating whether an extended device description is available;

and further arranged to optionally carry out the ~~steps~~ acts of:

testing the simple device description message to determine whether an extended device description is available;

sending ~~(108)~~ an extended device description query message to the ~~other further~~ device requesting an extended device description from the ~~other further~~ device; and

receiving ~~(110)~~ from the ~~other~~ further device an extended device description of variable length.

16. (Currently Amended) A The networked device according to claim 14 wherein the message handler ~~(26, 182)~~ is arranged to carry out the ~~steps~~ acts of:

receiving a simple device description query message from another device requesting a simple device description; and

sending to the other device the simple device description message of fixed length, the simple device description message being in ~~the~~ a form of a token-compressed message compressed from a human-readable message format.

17. (Currently Amended) A The networked device according to claim 16 further comprising a memory ~~(14)~~ storing a predetermined simple device description message precompressed from human readable format, wherein the message handler is arranged to read the predetermined simple device description message from the memory and send it through the transceiver in response to an incoming device query message.

18. (Currently Amended) A The networked device according to claim 17 wherein the networked device is a controller device ~~(2)~~ comprising a memory ~~(14)~~ containing a list of device types that can be controlled by the controller for determining the extent to which the networked device can control another device of known device type by determining ~~the~~ a lowest level device type in the list of device types that can be controlled by the networked device that either is the known device type or is a higher level device type from which the known device type depends.

19. (Currently Amended) A The networked device according to claim 18 wherein the message handler is arranged to receive a controller query message from the another device including ~~an~~ a requested device type value to request whether the controller is able to control a device of the requested device type; and to respond with a controller response message including a device type value representing the lowest level of device type in the list of device types that either is the requested device type or is a higher level device type from which the requested device type

depends.

20. (Currently Amended) A computer readable medium containing a computer program defining a device type hierarchy having predetermined top level elements including a controller device type (52) and a basic device type (54), and at least one further level (68) of subsidiary device types depending from the basic device type (54) and inheriting properties of higher level device types on which the subsidiary device type depends, but not including any further level of subsidiary device types depending from the controller device type (52), the computer program being arranged to cause a networked device (2,4) to send and/or receive simple device description messages (230) including the device type selected from the device type hierarchy.

21. (Currently Amended) A The computer program readable medium containing according to claim 20 for controlling a controller-type networked device, the networked device having a transport stack and an application, the computer program comprising:

code implementing a transport adaption layer (180) for

interfacing with the transport stack;

code implementing an application programming interface ~~(186)~~
for interfacing with the application; and

code implementing a messaging layer ~~(182)~~ including the
capabilities of sending and receiving messages in a token-encoded
human readable messaging format, the code being arranged to cause
the networked device:

to ~~recognise~~ recognize incoming device query messages
requiring a simple device description response and to provide a
simple device description response including a device type of
controller device type;

to respond to an incoming controller query message querying
whether the networked device can control a predetermined device
type by responding with the lowest level of device type in the list
of device types that can be controlled by the networked device that
either is the predetermined device type or is a higher level device
type from which the predetermined device type depends; and

to carry out the ~~steps~~ acts of:

sending a device query message to another device;

receiving a response from the other device indicating the

device type of the other device, the device type being selected from a device type hierarchy having predetermined top level elements including a controller device type and a basic device type, and at least one further level of subsidiary device types depending from the basic device type and inheriting properties of higher level device types on which the subsidiary device type depends, but not including any further level of subsidiary device types depending from the controller device type;

determining the extent to which the networked device can control the other device by determining the lowest level of device type that either is the device type of the other device or is a higher level device type from which the device type of the other device depends, in the list of device types that can be controlled by the networked device; and

controlling the other device with the functionality of the determined lowest level of device type by sending control signals selected from a list of control signals appertaining to the determined lowest level of device type.

22. (Currently Amended) A-The computer program-readable

medium containing arranged to cause a networked device to carry out the method of any of claims 3 to 10.